Exhibit 5

◆ Discussion about Genotoxicity

Summary

The EMEA CHMP guideline on the Limits of Genotoxic Impurities (EME/CHMP/QWP/251344/2006) effective as of 01 January 2007 and FDA draft guideline "*Genotoxic and Carcinogenic Impurities in Drug Substances and Products: Recommended Approaches*" is applicable to the applications for existing active substances.

According to the directed TTC rule ("Guideline on the limits of genotoxic impurities"), the concentration limits in ppm of genotoxic impurity in drug substance derived from the TTC can be calculated based on the expected daily dose to the patient using equation:

$$\text{Concentration limit (ppm)} = \frac{\text{TTC}[\mu g / day]}{\text{dose}\,(d / day)}$$

Because the maximum dosage for Valsartan is 320 mg/day, it is introduced in this equation "dose" with safety, and any potentially genotoxicity impurity (PGIs) in drug substance concluded an acceptable limit of **4.7 ppm**.

$$\text{Concentration limit (ppm)} = \frac{\text{TTC}[\mu g / day]}{\text{dose}\,(d / day)} = \frac{1.5 ug / day}{320 mg / day} = 4.6875 \text{ppm}$$

We discuss the genotoxic risk of the impurities from the following categories:

- *Organic impurities*
- *Residual solvents*
- *Substances not discussed*